TECH CENTER 1600/2900

of the state of th

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/458,302

DATE: 06/29/2001 TIME: 15:52:13

Input Set : A:\-144.app

Output Set: N:\CRF3\06292001\I458302.raw

```
4 <110> APPLICANT: Epimmune, Inc.
         John Fikes
 5
 Ġ
        Alessandro Sette
 7
        John Sidney
                                        ENTERED
        Scott Southwood
 9
        Robert Chesnut
10
        Esteban Celis
11
        Elissa Keogh
12
        Epimmune Inc.
14 <120> TITLE OF INVENTION: Inducing Cellular Immune Responses to
        Carcinoembryonic Antigen Using Pepetide and Nucleic Acid
         Compositions
18 <130> FILE REFERENCE: 018623-014400US
20 <140> CURRENT APPLICATION NUMBER: US 09/458,302
21 <141> CURRENT FILING DATE: 1999-12-10
23 <150> PRIOR APPLICATION NUMBER: US 08/027,146
24 <151> PRIOR FILING DATE: 1993-03-05
26 <150> PRIOR APPLICATION NUMBER: US 08/073,205
27 <151> PRIOR FILING DATE: 1993-06-04
29 <150> PRIOR APPLICATION NUMBER: US 08/159,184
30 <151> PRIOR FILING DATE: 1993-11-29
32 <150> PRIOR APPLICATION NUMBER: US 08/205,713
33 <151> PRIOR FILING DATE: 1994-03-04
35 <150> PRIOR APPLICATION NUMBER: US 09/189,702
36 <151> PRIOR FILING DATE: 1998-11-10
38 <160> NUMBER OF SEQ ID NOS: 2385
40 <170> SOFTWARE: FastSEQ for Windows Version 4.0
42 <210> SEQ ID NO: 1
43 <211> LENGTH: 8
44 <212> TYPE: PRT
45 <213> ORGANISM: Artificial Sequence
47 <220> FEATURE:
48 <223> OTHER INFORMATION: Artificial Peptide
50 <400> SEQUENCE: 1
51 Ala Ser Asn Pro Pro Ala Gln Tyr
52 1
55 <210> SEQ ID NO: 2
56 <211> LENGTH: 10
57 <212> TYPE: PRT
58 <213> ORGANISM: Artificial Sequence
60 <220> FEATURE:
61 <223> OTHER INFORMATION: Artificial Peptide
63 <400> SEQUENCE: 2
64 Ala Ser Asn Pro Pro Ala Gln Tyr Ser Trp
```

68 <210> SEQ ID NO: 3 69 <211> LENGTH: 11

PATENT APPLICATION: US/09/458,302

DATE: 06/29/2001 TIME: 15:52:13

Input Set : A:\-144.app

Output Set: N:\CRF3\06292001\I458302.raw

70 <212> TYPE: PRT 71 <213> ORGANISM: Artificial Sequence 73 <220> FEATURE: 74 <223> OTHER INFORMATION: Artificial Peptide 76 <400> SEQUENCE: 3 77 Ala Ser Asn Pro Pro Ala Gln Tyr Ser Trp Phe 81 <210> SEQ ID NO: 4 82 <211> LENGTH: 8 83 <212> TYPE: PRT 84 <213> ORGANISM: Artificial Sequence 86 <220> FEATURE: 87 <223> OTHER INFORMATION: Artificial Peptide 89 <400> SEQUENCE: 4 90 Ala Ser Asn Pro Ser Pro Gln Tyr 94 <210> SEQ ID NO: 5 95 <211> LENGTH: 10 96 <212> TYPE: PRT 97 <213> ORGANISM: Artificial Sequence 99 <220> FEATURE: 100 <223> OTHER INFORMATION: Artificial Peptide 102 <400> SEQUENCE: 5 103 Ala Ser Asn Pro Ser Pro Gln Tyr Ser Trp 104 1 5 107 <210> SEQ ID NO: 6 108 <211> LENGTH: 8 109 <212> TYPE: PRT 110 <213> ORGANISM: Artificial Sequence 112 <220> FEATURE: 113 <223> OTHER INFORMATION: Artificial Peptide 115 <400> SEQUENCE: 6 116 Ala Thr Gly Gln Phe Arg Val Tyr 117 1 120 <210> SEQ ID NO: 7 121 <211> LENGTH: 11 122 <212> TYPE: PRT 123 <213> ORGANISM: Artificial Sequence 125 <220> FEATURE: 126 <223> OTHER INFORMATION: Artificial Peptide 128 <400> SEQUENCE: 7 129 Asp Leu Val Asn Glu Glu Ala Thr Gly Gln Phe 133 <210> SEQ ID NO: 8 134 <211> LENGTH: 9 135 <212> TYPE: PRT 136 <213> ORGANISM: Artificial Sequence

139 <223> OTHER INFORMATION: Artificial Peptide

138 <220> FEATURE:

DATE: 06/29/2001

PATENT APPLICATION: US/09/458,302 TIME: 15:52:13

Input Set : A:\-144.app

Output Set: N:\CRF3\06292001\I458302.raw

141 <400> SEQUENCE: 8 142 Asp Ser Val Ile Leu Asn Val Leu Tyr 143 1 146 <210> SEQ ID NO: 9 147 <211> LENGTH: 9 148 <212> TYPE: PRT 149 <213> ORGANISM: Artificial Sequence 151 <220> FEATURE: 152 <223> OTHER INFORMATION: Artificial Peptide 154 <400> SEQUENCE: 9 155 Glu Ile Gln Asn Thr Thr Tyr Leu Trp 159 <210> SEQ ID NO: 10 160 <211> LENGTH: 10 161 <212> TYPE: PRT 162 <213> ORGANISM: Artificial Sequence 164 <220> FEATURE: 165 <223> OTHER INFORMATION: Artificial Peptide 167 <400> SEQUENCE: 10 168 Glu Ile Gln Asn Thr Thr Tyr Leu Trp Trp 169 1 172 <210> SEQ ID NO: 11 173 <211> LENGTH: 10 174 <212> TYPE: PRT 175 <213> ORGANISM: Artificial Sequence 177 <220> FEATURE: 178 <223> OTHER INFORMATION: Artificial Peptide 180 <400> SEQUENCE: 11 181 Glu Ser Pro Ser Ala Pro Pro His Arg Trp 182 1 185 <210> SEQ ID NO: 12 186 <211> LENGTH: 9 187 <212> TYPE: PRT 188 <213> ORGANISM: Artificial Sequence 190 <220> FEATURE: 191 <223> OTHER INFORMATION: Artificial Peptide 193 <400> SEQUENCE: 12 194 Glu Thr Gln Asp Ala Thr Tyr Leu Trp 195 1 198 <210> SEO ID NO: 13 199 <211> LENGTH: 10 200 <212> TYPE: PRT 201 <213> ORGANISM: Artificial Sequence 203 <220> FEATURE: 204 <223> OTHER INFORMATION: Artificial Peptide 206 <400> SEQUENCE: 13

207 Glu Thr Gln Asp Ala Thr Tyr Leu Trp Trp

211 <210> SEQ ID NO: 14

208 1

PATENT APPLICATION: US/09/458,302

DATE: 06/29/2001 TIME: 15:52:13

Input Set : A:\-144.app

Output Set: N:\CRF3\06292001\1458302.raw

- ·212 <211> LENGTH: 11
- 213 <212> TYPE: PRT
- 214 <213> ORGANISM: Artificial Sequence
- 216 <220> FEATURE:
- 217 <223> OTHER INFORMATION: Artificial Peptide
- 219 <400> SEQUENCE: 14
- 220 Gly Ile Pro Gln Gln His Thr Gln Val Leu Phe
- 221 1
- 224 <210> SEO ID NO: 15
- 225 <211> LENGTH: 11
- 226 <212> TYPE: PRT
- 227 <213> ORGANISM: Artificial Sequence
- 229 <220> FEATURE:
- 230 <223> OTHER INFORMATION: Artificial Peptide
- 232 <400> SEQUENCE: 15
- 233 Gly Thr Phe Gln Gln Ser Thr Gln Glu Leu Phe
- 234 1 5
- 237 <210> SEQ ID NO: 16
- 238 <211> LENGTH: 11
- 239 <212> TYPE: PRT
- 240 <213> ORGANISM: Artificial Sequence
- 242 <220> FEATURE:
- 243 <223> OTHER INFORMATION: Artificial Peptide
- 245 <400> SEQUENCE: 16
- 246 Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr
- 247 1
- 250 <210> SEQ ID NO: 17
- 251 <211> LENGTH: 8
- 252 <212> TYPE: PRT
- 253 <213> ORGANISM: Artificial Sequence
- 255 <220> FEATURE:
- 256 <223> OTHER INFORMATION: Artificial Peptide
- 258 <400> SEQUENCE: 17
- 259 His Leu Phe Gly Tyr Ser Trp Tyr
- 260 1
- 263 <210> SEQ ID NO: 18
- 264 <211> LENGTH: 10
- 265 <212> TYPE: PRT
- 266 <213> ORGANISM: Artificial Sequence
- 268 <220> FEATURE:
- 269 <223> OTHER INFORMATION: Artificial Peptide
- 271 <400> SEQUENCE: 18
- 272 His Ser Ala Ser Asn Pro Ser Pro Gln Tyr
- 276 <210> SEQ ID NO: 19
- 277 <211> LENGTH: 11
- 278 <212> TYPE: PRT
- 279 <213> ORGANISM: Artificial Sequence
- 281 <220> FEATURE:

PATENT APPLICATION: US/09/458,302

DATE: 06/29/2001 TIME: 15:52:13

Input Set : A:\-144.app

Output Set: N:\CRF3\06292001\1458302.raw

```
282 <223> OTHER INFORMATION: Artificial Peptide
284 <400> SEQUENCE: 19
285 His Ser Asp Pro Val Ile Leu Asn Val Leu Tyr
286 1
                     5
289 <210> SEQ ID NO: 20
290 <211> LENGTH: 8
291 <212> TYPE: PRT
292 <213> ORGANISM: Artificial Sequence
294 <220> FEATURE:
295 <223> OTHER INFORMATION: Artificial Peptide
297 <400> SEQUENCE: 20
298 Ile Ile Gln Asn Asp Thr Gly Phe
299 1
302 <210> SEO ID NO: 21
303 <211> LENGTH: 9
304 <212> TYPE: PRT
305 <213> ORGANISM: Artificial Sequence
307 <220> FEATURE:
308 <223> OTHER INFORMATION: Artificial Peptide
310 <400> SEQUENCE: 21
311 Ile Ile Gln Asn Asp Thr Gly Phe Tyr
312 1
315 <210> SEQ ID NO: 22
316 <211> LENGTH: 9
317 <212> TYPE: PRT
318 <213> ORGANISM: Artificial Sequence
320 <220> FEATURE:
321 <223> OTHER INFORMATION: Artificial Peptide
323 <400> SEQUENCE: 22
324 Ile Ile Ser Pro Pro Asp Ser Ser Tyr
325 1
328 <210> SEQ ID NO: 23
329 <211> LENGTH: 8
330 <212> TYPE: PRT
331 <213> ORGANISM: Artificial Sequence
333 <220> FEATURE:
334 <223> OTHER INFORMATION: Artificial Peptide
336 <400> SEQUENCE: 23
337 Ile Ser Pro Leu Asn Thr Ser Tyr
338 1
341 <210> SEQ ID NO: 24
342 <211> LENGTH: 8
343 <212> TYPE: PRT
344 <213> ORGANISM: Artificial Sequence
346 <220> FEATURE:
347 <223> OTHER INFORMATION: Artificial Peptide
349 <400> SEQUENCE: 24
350 Ile Ser Pro Pro Asp Ser Ser Tyr
351 1
                     5
```

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/458,302

DATE: 06/29/2001 TIME: 15:52:14

Input Set : A:\-144.app
Output Set: N:\CRF3\06292001\I458302.raw

L:31067 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2385